

1 THE EMBODIMENTS OF THE INVENTION FOR WHICH AND  
2 EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMS ARE DEFINED AS  
3 FOLLOWS:  
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5 1. Apparatus for administration of a PC-Server, the PC-Server having  
6 an architecture which outputs console data to a data bus for read and write  
7 functions to peripherals including a display adapter, and having an input interface,  
8 comprising:

9 (a) an adapter on the bus which emulates a display adapter to an  
10 extent necessary to receive display data from the PC-Server's bus;

11 (b) means for extracting the display data from the adapter;

12 (c) means for transmitting the display data to a remote user;

13 (d) means for receiving data from the remote user representing input  
14 commands to the PC-Server; and

15 (e) means for transmitting input commands to, and compatible with,  
16 the PC-Server input interface.

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18 2. The administration apparatus as recited in claim 1 wherein the  
19 adapter is capable of determining the form of the display data being written from the  
20 bus.

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22 3. The administration apparatus as recited in claim 1 wherein the  
23 adapter emulates at least a video frame buffer of a display adapter.

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4. The administration apparatus as recited in claim 3 wherein the adapter emulates at least video frame buffer and a video controller of a display adapter.

5. The administration apparatus as recited in claim 1 further comprising a microprocessor for extracting the display data from the adapter and for converting it to a stream compatible for transmission to a remote user.

6. The administration apparatus as recited in claim 1 wherein the display data is graphical, further comprising means for converting the graphical display data to textual display data for transmission to a remote user.

7. The administration apparatus as recited in claim 1 wherein the means for transmitting the display data and the means for receiving input commands are one or more serial devices.

8. The administration apparatus as recited in claim 1 wherein the means for transmitting the input commands to the PC-Server input interface comprise means for emulating commands compatible with a keyboard input interface.

1                   9. The administration apparatus as recited in claim 8 wherein the  
2 keyboard input interface is a serial device.

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4                   10.The administration apparatus as recited in claim 9 wherein the  
5 keyboard input interface is a keyboard jack.

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7                   11.The administration apparatus as recited in claim 8 wherein the  
8 input interface is a wireless device.

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10                  12.The administration apparatus as recited in claim 1 wherein the PC-  
11 Server has a hardware reset switch, further comprising:

12                  (a) means for determining if a received input command is a reset  
13 command; and

14                  (b) means for actuating the hardware reset of the PC-Server.

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16                  13.The administration apparatus as recited in claim 12 wherein a  
17 microprocessor determines if an input command is a reset command and actuates a  
18 relay for actuating the hardware reset of the PC-Server.

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1                   14. The administration apparatus as recited in claim 12 further  
2 comprising:

3                   (a) means for a setting a hook in the PC-Server operating system for  
4 periodically writing a predetermined string on the bus to a specified watchdog  
5 address on the adapter;

6                   (b) a microprocessor for associated with the adapter for timing the  
7 duration between sequential writing to the watchdog address and comparing the  
8 duration to a predetermined time; and

9                   (c) actuating the hardware reset of the PC-Server if the duration  
10 between sequential writes exceeds the predetermined time.

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12                   15. A method of remote user administration of a PC-Server having a  
13 data bus for read and write functions to peripherals including a display adapter, and  
14 having an input interface, comprising the steps of:

15                   (a) providing a peripheral adapter on the bus which emulates the  
16 display adapter to an extent necessary to receive display data from the bus and  
17 which has a communications device for transmission of data between the PC-  
18 Server and the remote user;

19                   (b) determining if the bus has written display data to the adapter;

20                   (c) extracting the display data from the adapter;

21                   (d) transmitting the display data via the communications device to the  
22 remote user;

1                   (e) receiving input commands from the remote user via the  
2 communications device; and

3                   (f) transmitting the received input commands to and compatible with  
4 the input interface.

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6                   16. The method as recited in claim 15 wherein the adapter emulates a  
7 video frame buffer of a display adapter.

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9                   17. The method as recited in claim 16 wherein the adapter further  
10 emulates a video controller of a display adapter.

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12                   18. The method as recited in claim 17 further comprising:

13                   (a) providing a microprocessor on the adapter;

14                   (b) extracting the display data from the adapter with the  
15 microprocessor;

16                   (c) converting the display data for transmission to a remote user with  
17 the microprocessor.

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19                   19. The method as recited in claim 18 further comprising converting  
20 graphical display data to textual display data before transmission to the remote  
21 user.

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1                   20.The method as recited in claim 18 further comprising transmitting  
2 display data and receiving input commands via a serial communications device.

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4                   21.The method as recited in claim 18 further comprising emulating  
5 input commands compatible with the input interface using a microprocessor.

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7                   22.A method for implementing a speech synthesis system from a PC-  
8 Server having a data bus for read and write functions to peripherals including a  
9 display adapter, comprising the steps of:

10                   (a) providing a speech synthesis device which accepts textual data;

11                   (b) providing a peripheral adapter on the bus which emulates a display  
12 adapter to an extent necessary to receive display data from the bus and which has  
13 a communications device for transmission of data between the PC-Server and the  
14 speech synthesis device;

15                   (c) determining if the bus has written display data to the adapter;

16                   (d) extracting the display data from the adapter; and

17                   (e) transmitting the display data via the communications device to the  
18 speech synthesis device.

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1                   23.The method as recited in claim 22 wherein the PC-Server has a  
2 keyboard input interface, further comprising the steps of  
3                   (a) receiving keyboard commands from a user; and  
4                   (b) transmitting the received keyboard commands to and compatible  
5 with the keyboard input interface.

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7                   24.Apparatus for administration of a PC-Server, the PC-Server having  
8 an architecture which outputs console data to a data bus for read and write  
9 functions to peripherals including a display adapter, and having an input interface,  
10 comprising:

11                   (a) an adapter on the bus which emulates a display adapter to an  
12 extent necessary to receive display data from the PC-Server's bus;

13                   (b) a microprocessor for extracting the display data from the adapter  
14 and for converting it to a stream compatible for transmission to a remote user;

15                   (c) one or more serial devices for receiving data from the remote user  
16 representing input commands to the PC-Server; and

17                   (d) an emulator for transmitting input commands to, and compatible  
18 with, the PC-Server input interface.

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20                   25.The administration apparatus as recited in claim 24 wherein the  
21 adapter emulates at least a video frame buffer of a display adapter.

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1                   26.The administration apparatus as recited in claim 24 wherein the  
2 adapter emulates at least video frame buffer and a video controller of a display  
3 adapter.

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5                   27.The administration apparatus as recited in claim 24 wherein the  
6 display data is graphical and further comprising a converter for converting the  
7 graphical display data to textual display data for transmission to a remote user.

8                   28.The administration apparatus as recited in claim 24 wherein the  
9 PC-Server input interface is a keyboard input interface.